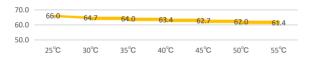
66 kVA





| MODEL           |             |     | PEMP66S3-1-E |  |  |
|-----------------|-------------|-----|--------------|--|--|
| Power<br>Pf.0.8 | Standby     | kVA | 66           |  |  |
|                 |             | kW  | 48           |  |  |
|                 | Prime       | kVA | 60           |  |  |
|                 |             | kW  | 53           |  |  |
|                 | Frequency   | Hz  | 50           |  |  |
|                 | Voltage     | V   | 230/400      |  |  |
|                 | Rated speed | rpm | 1500         |  |  |

# Temperature (CePEMius) Derate Curves Unit: kVA



# Altitude (meters) Derate Curves Unit: kVA



PEM generator sets meet the standards of ISO9001, CE, BS5000, ISO 8528, ISO 3046, IEC 60034, NEMA MG-1.22.

# **Standard reference Conditions:**

Standard reference condition  $25^{\circ}$ C ( $77^{\circ}$ F) air inlet temp, 100m (328ft) A.S.L 30% relative humidity. Fuel consumption data with diesel fuel with specific gravity of 0.85 and conforming to BS 2869: 1998, Class A2.

#### **Standard Features**

- >PEM Power provides one-source responsibility for the generating system and accessories.
- >The generator set and its components are prototype-tested, factorybuilt, and production-tested.
- >The 50Hz generator set offers a AUS 2012 listing and CE 2015 listing.
- >The generator set complies with ISO 8528-5, Class G3 requirements for transient performance.
- > The generator set accepts rated load in one step.
- >The 50Hz generator set engine is certified by the Environmental Protection Agency (EU or MEP) to conform to EU2、EU3 nonroad emissions regulations.(≤560KW)
- >A one-year limited warranty covers all systems and components. Two-, five-, and ten-year extended warranties are aPEMo available.

#### **Generator Features**

- >The brushless, rotating-field generator has broadrange reconnectability.
- >The pilot-excited, permanent-magnet generator (PMG) provides superior short-circuit capability
- >Controllers are available for all applications. See controller features inside.
- >The low coolant level shutdown prevents overheating (standard on radiator modePEM only)
- ➤Integral vibration isolation eliminates the need for under-unit vibration spring isolators
- ➤ An electronic, isochronous governor delivers precise frequency regulation.
- > Electronic engine controPEM and a generator microprocessor controller combine to deliver one of the most advanced control systems in today's generator market.

RATINGS: All three-phase units are rated at 0.8 power factor. Standby ratings: Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271. Prime power ratings: Prime power ratings apply to installations where utility power is unavailable or unreliable. At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528/1, overload power in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271.For limited running time and base load ratings, consult PEM. Obtain the technical information bulletin (TIS-101) on ratings guidelines for the complete ratings definitions. PEM reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.



# Perkins engine Model: 1103A-33TG2

#### Main features:

- · Compact and efficient power
  - ➤ 1100 series is the result of an intensive period of customer research that has guided the development of the range
  - ➤ The new 3.3 L cylinder block ensures bore roundness is maintained under the pressures of operation. It aPEMo ensures combustion and mechanical noise is lowered
  - ➤ A new cylinder head has re-established Perkins mastery of air control
- Quality by design
  - Product design and Class A manufacturing improvements enhance product reliability while maintaining Perkins legendary reputation for durability
- · Cost effective power
  - Compact size and low noise
  - > Lower fuel consumption and oil use
  - > 500 hours service intervaPEM
  - > 2 year warranty







# **Engine Specifications**

| Engine Brand                  | PERKINS                    |
|-------------------------------|----------------------------|
| Engine Model                  | 1103A-33TG2                |
| Cylinder No.& Configuration   | 3 cylinder Diesel L type   |
| Working Mode                  | Turbocharged               |
| Bore x Stroke mm              | 105*127                    |
| Displacement L                | 3.3                        |
| Compression Ratio             | 17.25:1                    |
| Rated Power kW                | 55                         |
| Rated Speed                   | 1500                       |
| Lubrication System            | Splash Lubrication         |
| Lube Oil                      | Conforms above CF class or |
|                               | SAE10W-30,15w-40           |
| Lube Oil Capacity L           | 8.3                        |
| Battery Capacity              | 6-QW-60(580)*1             |
| Fuel Type                     | Diesel:0#(Summer),-        |
|                               | 10#(Winter),-35#(Cold)     |
| Fuel Consumption 25% loadL/H  | 4.2                        |
| Fuel Consumption 50% loadL/H  | 7.56                       |
| Fuel Consumption 75% loadL/H  | 10.8                       |
| Fuel Consumption 100% loadL/H | 14.6                       |



### **Alternator**

Type Exciter type

Voltage regulator
Insulation
Material
Temperature rise
Bearing: quantity, type
Coupling
Amortisseur windings
Rotor balancing
Voltage regulation, no-load to
full-load(with < 0.5% drift due
to temp. variation
One-step load acceptance
Unbalanced load capability

4-Pole, Rotating-Field Brushless, Permanent-Magnet, Pilot Exciter Solid-State, Volts/Hz NEMA MG1, Class H Synthetic, Nonhygroscopic 130°C, 150°C Standby 1, Sealed Flexible Disc Full 125% 60 Hz, 150% 50 Hz

3-Phase Sensing,  $\pm 0.25\%$ 

100% of Rating 100% of Rated Standby

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the generator field.
- > Self-ventilated and dripproof construction.
- Superior voltage waveform from two-thirds pitch windings and skewed stator.
- Digital solid-state.volts-per-hertz voltage regulator with ±0.25% no-load to full-load regulation.
- Brushless alternator with brushless pilot exciter for excellent load response.

#### Controller





Audiovisual annunciation with NFPA 110 Level 1 capability. Programmable microprocessor logic and digital display features. Safeguard circuit protection standard. 12- or 24-volt engine electrical system capability. Remote start, remote annunciation, and remote communication options. Refer to M6-46 for additional controller features and accessories

# **Key Features**

- > 4-line back-lit LCD text display
- > Five key menu navigation
- > Front panel editing with PIN protection
- > LED and LCD alarm indication
- Customisable status screens
- > Power save mode
- > Support for up to three remote display units
- > 9 configurable inputs
- > 8 configurable outputs
- > Flexible sender inputs
- Configurable timers and alarms
- > 3 configurable maintenance alarms
- > Multiple date and time scheduler
- Configurable event log (250)Control logic facilities
- Easy access diagnostic page
- > CAN and Magnetic Pick-up / Alt. Sensing
- > Fuel usage monitor and low fuel alarms
- Charger alternator failure alarm

- > Manual speed control
- Manual fuel pump control
- > Engine exerciser
- > "protections disabled" feature
- > kW overload protection
- Power monitoring
- Load switching (load shedding and dummy load outputs)
- > Automatic load transfer
- > Unbalanced load protection
- > Independent Earth Fault trip
- > USB connectivity
- > Backed up real time clock
- > Configurable display languages
- ➤ User selectable RS232 and RS485 communications
- > SMS Messaging (additional external modem required)
- Additional display screens to help with modem diagnostics
- > Integral PLC editor

66 kVA

# **Generating Sets Standard and Optional Features**

## **Engine**

- > 4-stroke, water-cooled diesel engine
- Standard air filter
- > Standard fuel filter
- Standard oil filter
- Oil temperature sensor
- Low coolant level sensor
- Radiator with blowing fan
- Industrial silence
- > Fuel water separator (optional)
- Water jacket heater (optional)

#### **Alternator**

- Class H insulation
- ➤ IP23 Protection
- Automatic Voltage Regulator (AVR)
- PMG excitation
- Single bearing alternator
- Class F or class B temperature rise (optional)
- Digital Voltage Regulator (optional)
- Double bearing (optional)
- Condensed heater (optional)
- > IP41 Protection (optional)

#### **Electrical** system

- Maintenance-free and anti-explosion battery
- > Standard breaker
- ABB breaker (optional)
- ATS (optional)
- > Battery charger (optional)
- > GMS monitoring (optional)

# **Packing**

- > Engine manual
- Alternator manual
- > Gensets operation and maintenance manual
- Tool kit

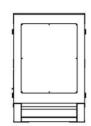
# **Baseframe**

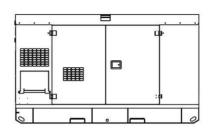
- Forklift pockets
- Pulling slots
- > Earth wire protection
- > Built-in anti vibration mountings
- Fuel outlet value
- Standard fuel tank
- Enlarged fuel tank (optional)
- Separated fuel tank (optional)

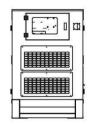
# Canopy

- Weatherproof & sound-attenated canopy
- Sound-absorbing material
- Lifting lug
- Emergency stop button
- Inside silencer

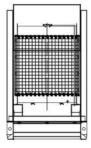
# **Overview Dimension & Weight**

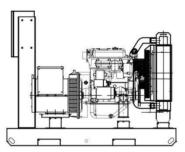


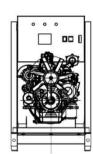




| P66S3-1-E (Silent type) |                |               |                |             |                           |  |  |
|-------------------------|----------------|---------------|----------------|-------------|---------------------------|--|--|
| Configuration           | L= Length (mm) | W= Width (mm) | H= Height (mm) | Weight (kg) | Fuel Tank<br>Capacity (L) |  |  |
| Silent Type             | 2450           | 960           | 1450           | 1120        | 116.8                     |  |  |







| P66E3-1-E (Open type) |                |               |                |             |                           |  |  |
|-----------------------|----------------|---------------|----------------|-------------|---------------------------|--|--|
| Configuration         | L= Length (mm) | W= Width (mm) | H= Height (mm) | Weight (kg) | Fuel Tank<br>Capacity (L) |  |  |
| Open Type             | 1760           | 760           | 1380           | 920         | -                         |  |  |

Contact your distributor / dealer for more information

#### **MABNA POWER COMPANY**

Payesh Energy MABNA Tel: +98 (021) 91001540 P.E. Web: WWW.PAYESH-ENERGY.iR Email: info@payesh-energy.ir

